

ABSTRACT

5 A method and apparatus for providing a synchronization mechanism to control
accesses to a non-cached shared resource by devices connected by a high speed
interconnect is herein described. A semaphore is used to control access to a shared
resource which is implemented by a pair of semaphore registers. A previous semaphore
register is used to store the previous owner of the semaphore and a current semaphore
10 register is used to either store the current owner of the semaphore or indicate that the
semaphore is available. The current semaphore register is updated when the semaphore
is available and is being taken or when the semaphore is being freed. The previous
semaphore register is updated when the semaphore is freed.